



Launch Mission Execution Forecast

Mission: Atlas V CST-100 OFT-2

Issued: 15 May 2022 / 1100L (1500Z)

Valid: 19 May 2022 / 1845 – 1905L (2245 – 2305Z)



Forecast Discussion: Central Florida is expected to continue to gradually ease into the summer convective season this week as our local weather becomes predicated on the placement of the Atlantic high pressure area, amount of available moisture, as well as the interaction of the Gulf and Atlantic sea breezes. Isolated to scattered afternoon shower and thunderstorms are anticipated to develop each afternoon this week – with the greatest concentration predominantly west of Interstate 95 where the sea breezes are more likely to collide in the light south to southwest steering flow. For MLP Roll activities on Wednesday, mainly dry conditions are forecast with only a small chance, less than 20%, of a shower or thunderstorm in the afternoon. Similar conditions are expected on Thursday, with isolated afternoon activity expected to develop near or just west of the launch complex, bringing a chance of a Cumulus Cloud Rule and/or Anvil Cloud Rule violation during the count. Precipitation chances increase substantially on Friday as winds increase out of the south and draw a plume of deeper moisture upward from the Caribbean. As a result, the forecast is more pessimistic for the backup opportunity with higher probabilities of violations of the Cumulus Cloud Rule, Thick Cloud Layer Rule, and Anvil Cloud Rules.

Launch Day	Probability of Violating Weather Constraints ¹					
	30%	Primary Concerns: Cumulus Cloud Rule, Anvil Cloud Rules				
	Weather Conditions					Additional Risk Criteria ²
	Weather/Visibility:	Isolated Storms / 7 mi.	Clouds			
	Temp/Humidity:	79°F / 80%	Type	Coverage	Base (ft)	Tops (ft)
24-Hour Delay	Ground Winds (230'):	150° 15 - 20 knots	Cumulus	Few	3,500	6,000
			Cirrostratus	Broken	28,000	35,000
						Solar Activity: Low
	Probability of Violating Weather Constraints					
	60%	Primary Concerns: Cumulus Cloud Rule, Thick Cloud Layer Rule, Anvil Cloud Rules				
Notes	Weather Conditions					Additional Risk Criteria
	Weather/Visibility:	Sct Storms / 7 mi.	Clouds			
	Temp/Humidity:	78°F / 84%	Type	Coverage	Base (ft)	Tops (ft)
	Ground Winds (230'):	160° 15 - 20 knots	Cumulus	Scattered	2,500	6,000
			Altocumulus	Broken	16,000	20,000
1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window. 2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor. See https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf for more information.						
Next Forecast Will Be Issued		16 May 2022				